



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Stephen PALM

Confirmation No. : 3282

Group Art Unit : 2811

Appl. No. : 10/657,272

Examiner : Not Yet Assigned

Filed : September 9, 2003

For : ACTIVATION OF MULTIPLE XDSL MODEMS WITH IMPLICIT
CHANNEL PROBE

SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir :

In accordance with the duty of disclosure under 37 C.F.R. §1.56 and §§1.97-1.98,

Applicant hereby calls the following documents to the attention of the Examiner:

A copy of a European Search Report mailed in related European Patent Application No. 03028106.7-2415 on March 23, 2004 is enclosed, in which the following documents were cited:

ITU-T Recommendation V.8 bis, "Procedures for the Identification and Selection of Common Modes of Operation Between Data Circuit-Terminating Equipments (DCEs) and Between Data Terminal Equipments (DTEs) Over the General Switched Telephone Network and On Leased Point-to-Point Telephone-Type Circuits," which was published by the International Telecommunication Union in August, 1996;

P24109.A04

U.S. Patent 5,493,609 to DAVIS et al., which issued on February 20, 1996; and

An article by K. KRECHMER at pages 63,64 and 66 of Data Communications, McGraw Hill, NY, vol. 23, no. 2 (January 21, 1994), entitled "V.34 Modems: Off to a Fast Start?."

The relevancy of each document is described in the European Search Report. Applicant notes that copies of these documents were previously submitted or are U.S. patents, and thus, copies are not enclosed.

A copy of a Canadian Office Action mailed in related Canadian Patent Application No. 2,396,963 on March 12, 2004 is enclosed, in which the following documents were cited:

European Patent Application Publication No. EP 0 831 624, which was published on March 25, 1998; and

European Patent Application Publication No. EP 0 513 527, which was published on November 19, 1992.

The relevancy of each document is described in the Canadian Office Action. Applicant submits herewith copies of the two European patent application publications that were cited in the Canadian Office Action, as they are newly cited documents.

Further to the U.S. Patent and Trademark Office's decision to waive the requirement under 37 C.F.R. §1.98 (a)(2)(i), copies of the U.S. patents are not enclosed herewith. However, if any copies are needed, the Examiner is respectfully requested to contact the undersigned.

Applicant respectfully requests that the Examiner consider the above materials and cite the documents. The two European patent documents are attached and the above-noted documents have been listed on a PTO-1449 Form, which is also attached hereto. The Examiner

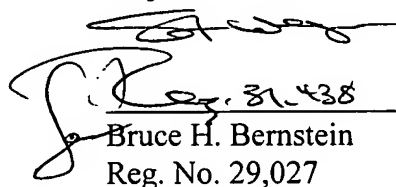
P24109.A04

is respectfully requested to initial the appropriate spaces on the attached PTO-1449 Form and to return a completed copy of the Form to Applicant with the next official communication in the present application to confirm consideration of these documents.

Applicant notes that an Office Action on the merits has not issued in the instant application, and thus no fee is believed necessary to ensure consideration of the submitted material. However, if an Office Action on the merits has issued, and is crossing this statement in the mail, the undersigned hereby authorizes the Commissioner to charge any fee necessary to ensure consideration of this statement, including any payment under 37 C.F.R. §1.17 (p), to Deposit Account No. 19-0089.

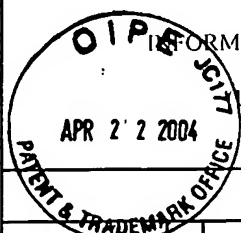
Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
Stephen PALM


Reg. No. 31,438
Bruce H. Bernstein
Reg. No. 29,027

April 22, 2004
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Form PTO-1449

U.S. Department of Commerce
Patent and Trademark OfficeAtty. Docket No.
P24109Serial No.
10/657,272INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

(Use several sheets if necessary)

Applicant
Stephen PALMFiling Date
September 9, 2003Group
3282

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5 4 9 3 6 0 9	02/20/96	DAVIS et al.			

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
0 8 3 1 6 2 4	03/25/98	E.P.O.			
0 5 1 3 5 2 7	11/19/98	E.P.O.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

1	ITU-T Recommendation V.8 bis, "Procedures for the Identification and Selection of Common Modes of Operation Between Data Circuit-Terminating Equipments (DCEs) and Between Data Terminal Equipments (DTEs) Over the General Switched Telephone Network and On Leased Point-to-Point Telephone-Type Circuits," which was published by the International Telecommunication Union in August, 1996.
2	An article by K. KRECHMER at pages 63,64 and 66 of Data Communications, McGraw Hill, NY, vol. 23, no. 2 (January 21, 1994).

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



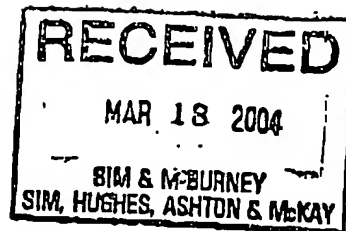
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March 12, 2004

Application No. : 2,396,963
Owner : MATSUSHITA GRAPHIC COMMUNICATION SYSTEMS, INC.
Title : **ACTIVATION OF MULTIPLE XDSL MODEMS WITH IMPLICIT CHANNEL PROBE**
Classification : H04L-12/12
Your File No. : 9116-124 MIS
Examiner : Chapman Wong

YOU ARE HEREBY NOTIFIED OF :

- A REQUISITION BY THE EXAMINER IN ACCORDANCE WITH SUBSECTION 30(2) OF THE PATENT RULES;
- A REQUISITION BY THE EXAMINER IN ACCORDANCE WITH SECTION 29 OF THE PATENT RULES.

IN ORDER TO AVOID MULTIPLE ABANDONMENTS UNDER PARAGRAPH 73(1)(A) OF THE PATENT ACT, A WRITTEN REPLY TO EACH REQUISITION MUST BE RECEIVED WITHIN SIX MONTHS AFTER THE ABOVE DATE.

This application has been examined taking into account applicant's correspondence received in this office on May 23, 2003.

The number of claims in this application is 23.

A search of the prior art has revealed the following:

References applied

European Patent Documents

0,831,624	25 March 1998	Chen
0,513,527	19 November 1992	Sridhar et al.

Canada

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2,396,963

- 2 -

Chen discloses a modem that operates selectively in the voice-band frequency band and at higher frequency bands. This modem supports multiple line codes, like DMT and CAP. The modem uses a Digital Signal Processor (DSP), so that different existing ADSL line codes, such as Discrete MultiTone (DMT) and Carrierless AM/PM (CAP), can be implemented on the same hardware platform. The modem negotiates in real-time, for a desired line transmission rate to accommodate line condition and service-cost requirement. The line code and rate negotiation process may be implemented at the beginning of each communication session through the exchange of tones between the modems. A four-step MDSL modem initialization process is provided for line code and rate compatibility. A new synchronization startup procedure for CAP based MDSL modems is provided. The handshake protocol and receiver algorithm allow reliable modem synchronization over severely amplitude distorted channels such as standard telephone twisted-pair wire. An internal state machine in an MDSL modem records and monitors the line status and notifies the state change to the other MDSL and also the host processor.

Sridhar et al. disclose a two wire modem that selects a carrier frequency and a baud rate from a predetermined plurality of carrier frequencies and baud rates to communicate with another modem over a communication media in a full duplex mode based on estimated characteristics of the communication media. The two-wire modem for communicating with a remote modem over a communication medium comprises a transmitter for transmitting signals onto the communication medium, a receiver for receiving signals from the communication medium, a line probing processor for sending and receiving line probing signals, and an echo canceller for cancelling echoes in the communication medium.

Obvlousness

Chen describes a new rate negotiation method that enables a variable-rate DSL (VRDSL) system. Using the rate negotiation method, the variable rate system adapts its throughput based on line conditions, computational capabilities, network accessibility, and application requirements. The initialization process is comprised of channel probing, line code selection, rate negotiation and transceiver training. During channel probing, an MDSL modem at the subscriber-end sends probing tones in the upstream band for a certain duration. After the first duration, the MDSL modem at the central office end responds with channel probing tones in the downstream band. Although tones are sent upstream and downstream in Chen, while signals are transmitted and received in the present inventions; the minor difference is obvious.

2,396,963

- 3 -

The transmission rate preference at the subscriber end depends on the line condition, hardware capability, and user choice or application requirements. Similar to Chen, the present application exchanges line condition through its modulation independent information and modulation dependent information.

There is no inventive step shown in using channel probing for the activation of XDSL modems in the present invention that would overcome what has already been analogously disclosed in the art of telecommunications. Channel probing is well known in the art of telecommunications, especially in the voice band. The use of a conventional startup sequence or initialization process to test or indicate the constitution or condition of the communication channel between the modems has already been taught by Chen.

Similar to Sridhar et al., the present application describes the receiving and sending of line probing signals. Furthermore, Sridhar et al. describe the process of estimating channel characteristics and estimating range through a common startup procedure.

This application does not comply with Section 28.3 of the *Patent Act*. All of the subject matter described and claimed in this application would have been obvious on the claim date to a person skilled in the art of telecommunications engineering to which it pertains having regard to Chen or Sridhar et al.

In view of the foregoing defects, the applicant is requisitioned, under Subsection 30(2) of the Patent Rules, to amend the application in order to comply with the Patent Act and the Patent Rules or to provide arguments as to why the application does comply.

Under Section 29 of the *Patent Rules*, applicant is requisitioned to provide an identification of any additional art cited during the prosecution of the United States and European Patent Office applications describing the same invention on behalf of the applicant, or on behalf of any other person claiming under an inventor named in the present application, subsequent to applicant's correspondence of May 23, 2003. Similarly, the applicant is requisitioned to provide particulars of conflict, opposition, re-examination or similar proceedings affecting these United States and European Patent Office applications. In accordance with Subsection 29(3) of the *Patent Rules*, if there are no such proceedings, this must be stated.

Chapman Wong
Patent Examiner
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